Updates

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Minimum DFS Calculation

- If parent not min DFS, then the children too are not.
- Consider the lexicographic order - whichever occurs first is the minimum DFS.

Subgraph2vec – degree or distance?

- Degree (number of outgoing edges) considered.
- Consider d-degree neighbors rooted at v.
- At each neighbouring vertex, the d-1,d,d+1 degree subgraphs are in the context of v.

PCA – Dimension reduction

- PCA was used to reduce the number of nodes and not the length of the vectors.
- Although, that was not the primary motive.
- It was mainly used to reduce the dimensionality from 'd' to '2D'.
- PCA was done coz node2vec algorithm is stochastic; the dimension of the embedding changes for each training; so we retain the first d PCs so that the different training iterations can be comparable.

PCA – Alternative

- Linear Discriminant Analysis (LDA)
- LDA doesn't maximize explained variance. Instead, it maximizes the *separability* between classes.
- LDA is supervised.
- No compression. Only dimension reduction.
- Axes - The axes along which separation is maximised.
- These axes are considered to reduce the dimensionality.

THANK YOU